In the Specification:

Please amend paragraph [0020] of the Specification as follows:

[0020] According to a still further aspect of the invention, in a multi-carrier data communication system, a method of equalizing a multi-carrier signal is provided. The method includes estimating a channel transfer function; compensating a received signal using a phase compensation factor, yielding a phase-compensated signal; compensating the ~~first~~ phase-compensated signal using the estimated channel transfer function, yielding an equalized signal; estimating a phase metric using the phase-compensated signal, ~~and~~ the equalized signal, the estimated channel transfer function, and a plurality of carrier-specific weighting factors, wherein each of the carrier-specific weighting factors being associated with a different one of a plurality of carriers of the multi-carrier signal and assigned a value related to a noise power associated with the carrier; estimating a carrier frequency offset using the estimated phase metric; estimating a clock frequency offset using the updated estimate of the carrier frequency offset; and updating the phase compensation factor using the estimated carrier frequency offset and the estimated clock frequency offset. The value of each of the carrier-specific weighting factors may be inversely proportional to a noise power associated with the associated carrier. Where the plurality of carriers comprises a first subset of pilot carriers and a second subset of non-pilot carriers, the carrier-specific weighting factor associated with at least one of the pilot carriers may be increased relative to the carrier-specific weighting factor associated with at least one of the non-pilot carriers.

Please amend paragraph [0054] of the Specification as follows:

[0054] As another example, in some implementations of OFDM, some of the carriers provide more reliable channel estimates than others, and the reliability of the channel estimate for each carrier is known in advance. For example, the channel estimation system and method disclosed in the above-cross-referenced U.S. Patent Application Serial. No. [[__/_____]] 09/966,419 provides a channel estimate that has a known reliability distribution for the carriers. Reliability may be measured, e.g., by relative uncertainty in the channel estimate, by absolute uncertainty in the channel estimate, or by other standard measures. In such implementations, weight source 310

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or noise estimator 410 may be configured to increase or decrease the carrier-dependent weight w_k as a function of the known reliability of the channel estimate for the carrier, thereby giving greater relative weight to carriers with more reliable channel estimates. This feature may also be implemented in combination with any of the above or other methods of estimating a noise power spectrum.

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